## ABSTRACT

## METHOD AND APPARATUS FOR TRANSMITTING AND RECEIVING SIGNALS

A method and apparatus for receiving a radio frequency signal and a method and apparatus for transmitting a modulation signal in a multiple channel radio system. The method for receiving the radio frequency signal involves mixing the radio frequency signal with a demodulating signal, tunable in frequency steps greater than the channel spacing of the multiple channel radio system to facilitate rapid frequency adjustments. The resultant intermediate signal is then mixed with another demodulating signal, tunable in relatively smaller frequency steps in order to select the channel containing the radio frequency signal.

Figure 6